

CLAIMS

Now, therefore, the following is claimed:

1. A telecomm test unit for evaluating the performance of a data link, the test unit comprising:

a rear module;

a front module for controlling the test unit and processing performance information; and

an application module electrically connected and mechanically secured between the rear module and the front module, wherein the application module is coupled to the data link for providing performance information.

2. The test unit of claim 1, wherein one or more additional application modules is placed between the front module and the rear module.

3. The test unit of claim 1, wherein the front module has one or more ports for coupling to an external user interface.

4. The test unit of claim 1, wherein the external user interface is a personal computer.

5. The test unit of claim 1, wherein the front module has a user interface.

6. A method for providing a test unit to obtain performance information of a data communication link, the method comprising the steps of:

providing a back module with a power source;

providing an front module for controlling the test unit and receiving performance information;

selecting an application module adapted for monitoring the performance of one or more data links; and

stacking the front module, application module, and back module in sequence and electrically connecting and mechanically securing the modules together so that the stacked modules form the test unit.

7. A system for providing a multifunction test unit, the system comprising:

a back module having a power supply,

a front module having control logic for controlling the system and processing performance information; and

two or more application modules secured between the back module and the front module wherein each of the application modules is adapted to provide performance information about different types of communication links, wherein each application module furnishes performance information to the front module.

8. The system of claim 7, wherein the back module has a multi-positional foot comprising:

a set of support arms that pivot near the center of the back module;

an adjustment arm for each of the support arms that is pivotally coupled to each of the support arms on one end and has a slotted retainer with multiple slots on the other end; and

a rod secured to the bottom back edge of the back module that is coupled to the slotted retainers wherein a multiple viewing angles are provided by the slot location of the rod within the slotted retainer.

9. A method of stacking and latching electronic modules to provide a test apparatus the method comprising;

positioning a front module to receive an application module;

placing a first application module on the front module and electrically coupling the first application module to the front module and then latching the application module to the front module;

stacking and latching one or more additional application modules to the first application module, thereby increasing the functionality of the test apparatus; and

securing a back module to the last application module of the stacking step.

10. The method of claim 9, wherein a bus structure between the front module and the back module is connected to each of the application modules.

11. The method of claim 10, wherein the bus structure comprises a protocol bus and a processor bus.

12. The method of claim 10, wherein the rear module has a rear battery pack.
13. The method of claim 10, wherein the front module has multiple connectivity ports.
14. The method of claim 12, wherein the front module has a display panel.
15. The method of claim 14, wherein the display panel is a touch screen.
16. An application module that fits between a front module and a rear module, the application module comprising;
 - an interface circuit for coupling to a data communication link and receiving data from the data communication link;
 - a link processing circuit to convert the received data for transfer to the front module over a test unit bus; and
 - connectors on both sides of the application module to provide bus conductivity between the front and rear module.

17. A telecomm test unit for evaluating the performance of a data link, the test unit comprising:

a first module having control logic; and

a plurality of removable application modules stacked on and communicatively coupled to the first module, each of the application modules configured to perform different types of tests on at least one data link,

wherein the control logic is configured to receive diagnostic information from each of the application modules and to provide an output indicative of the diagnostic information.

18. The test unit of claim 17, further comprising a segmented bus passing through each of the application modules, wherein each of the application modules is configured to communicate with the control logic over the segmented bus.

20. The test unit of claim 18, further comprising a multi-position foot for positioning the test unit in different orientations, the multi-position foot comprising:

a first support arm coupled to a first bar having a slotted retainer;

a second support arm coupled to a second bar; and

an adjustment rod extending into the slotted retainer and between the first bar and the second bar, the adjustment rod movable to different slots of the slotted retainer, wherein the test unit is placed in a different orientation by moving the adjustment rod to a different one of the slots.